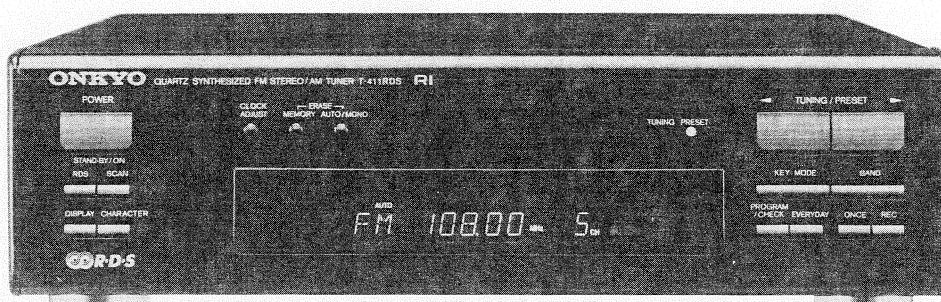


ONKYO SERVICE MANUAL

SYNTHESIZED FM STEREO/AM TUNER MODEL T-411RDS



Black and silver models

BUP, UP	230V AC, 50Hz
BUW, UW	120/220V AC, 50/60Hz

SAFETY-RELATED COMPONENT WARNING!!
COMPONENTS IDENTIFIED BY MARK Δ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

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ONKYO

AUDIO COMPONENTS

SPECIFICATIONS

FM

Tuning Range:	87.50 – 108.00MHz (50kHz steps) 87.90 – 107.90MHz (200kHz steps)
Usable Sensitivity:	Mono: 11.2dBf, 1.0μV, 75 Ohms IHF 0.9μV 75 Ohms DIN Stereo: 17.2dBf 2.0μV, 75 Ohms IHF 20μV 75 Ohms DIN
50dB Quieting Sensitivity:	Mono: 16.1dBf 1.7μV 75 Ohms Stereo: 36.1dBf 17μV 75 Ohms
Capture Ratio:	1.5dB
Image Rejection Ratio:	80dB
IF Rejection Ratio:	90dB
Signal-to-Noise Ratio:	Mono: 73dB IHF Stereo: 66dB IHF
Selectivity:	55dB DIN (±300kHz, 40kHz dev.)
AM Suppression Ratio:	50dB
Total Harmonic Distortion:	Mono: 0.1% Stereo: 0.2%
Frequency Response:	30 – 15,000Hz (±1.5 dB)
Stereo Separation:	40dB at 1kHz 30dB at 70 – 10,000Hz
Output Voltage:	0.75V
Muting Level:	17.2 dBf 2.0 μV, 75 Ohms

AM

Tuning Range:	European models: 522 – 1611 kHz (9 kHz steps) Worldwide models: 531 – 1602 kHz (9 kHz steps) 530 – 1710 kHz (10 kHz steps)
Usable Sensitivity:	25μV
Image Rejection Ratio:	40dB
IF Rejection Ratio:	40dB
Signal-to-Noise Ratio:	40dB
Total Harmonic Distortion:	0.8%
Output Voltage:	150mV

General

Dimensions (W × H × D):	275 × 79 × 308 mm 10-7/8" × 3-1/8" × 12-1/8"
Weight:	2.2 kg, 4.9 lbs.

Specifications and features are subject to change without notice.

SERVICE PROCEDURES

1. Safety-check out

(Only U.S.A. model)

After correcting the original service problem, perform the following safety check before releasing the set to the customer.

Connect the insulating-resistance tester between the plug of power supply cord and chassis.

Specifications: 3.3Mohm ±10% at 500V.

2. Memory preservation

This unit does not require memory preservation batteries. A built-in memory power back-up system preserves contents of the memory during power failures and even when the unit is unplugged. The unit must be plugged in and the power switch turned on and off once in order to charge the back-up system. Note that since this is not a permanent memory, the power switch must be turned on and off a few times each month to keep the back-up system operative. The period of time during which memory contents are preserved after power has last been turned off varies depending on climate and placement of the unit. On the average, memory contents are protected over a period of 3 to 4 weeks (a minimum of 2 weeks) after the last time power has been turned off. This period is shorter when the unit is exposed to very high humidity or used in an area with an extremely humid climate.

3. Voltage Selector (Back Panel)

W models are equipped with a voltage selector to conform with local power supplies. Be sure to set this switch to match the voltage of the power supply in your area before turning the power switch on. This switch is set to 220V at the factory. Voltage is changed by sliding the groove in the switch with a screwdriver to the right or left. Confirm that the switch has been moved all the way to the right or left before turning the power switch on. Models without a voltage selector can only be used in areas where the power supply is the same as that of the unit.

4. Tuning Step Frequency Switch (Rear Panel)

W models are equipped with a switch for the AM (9kHz/10kHz) and FM (50kHz/100kHz) bands. The switch should be set to the proper steps for the radio broadcast frequencies in your area.

5. Changing the band step

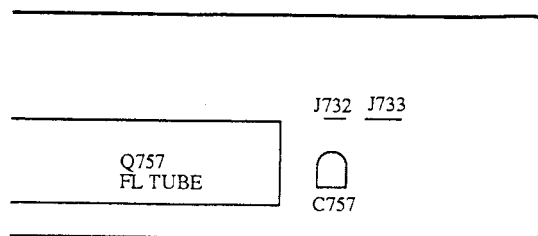
With the exception of the Worldwide models, a BAND STEP selector switch is not provided.

FM

MODEL	BAND STEP	J732
UD	200kHz → 50kHz	Open
UP/UQ	50kHz → 200kHz	Short

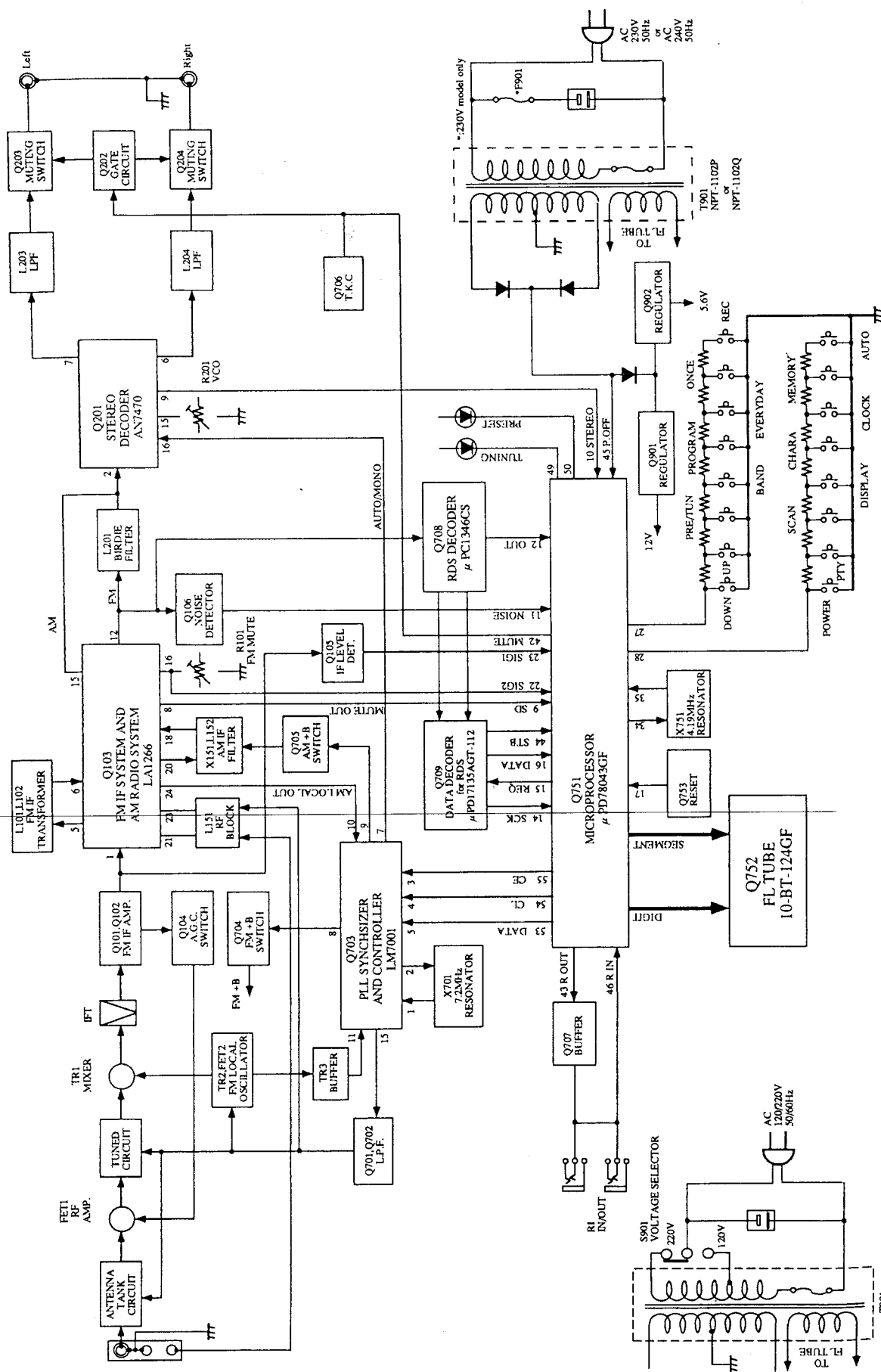
AM

MODEL	BAND STEP	J733
UD	10kHz → 9kHz	Short
UP/UQ	9kHz → 10kHz	Open

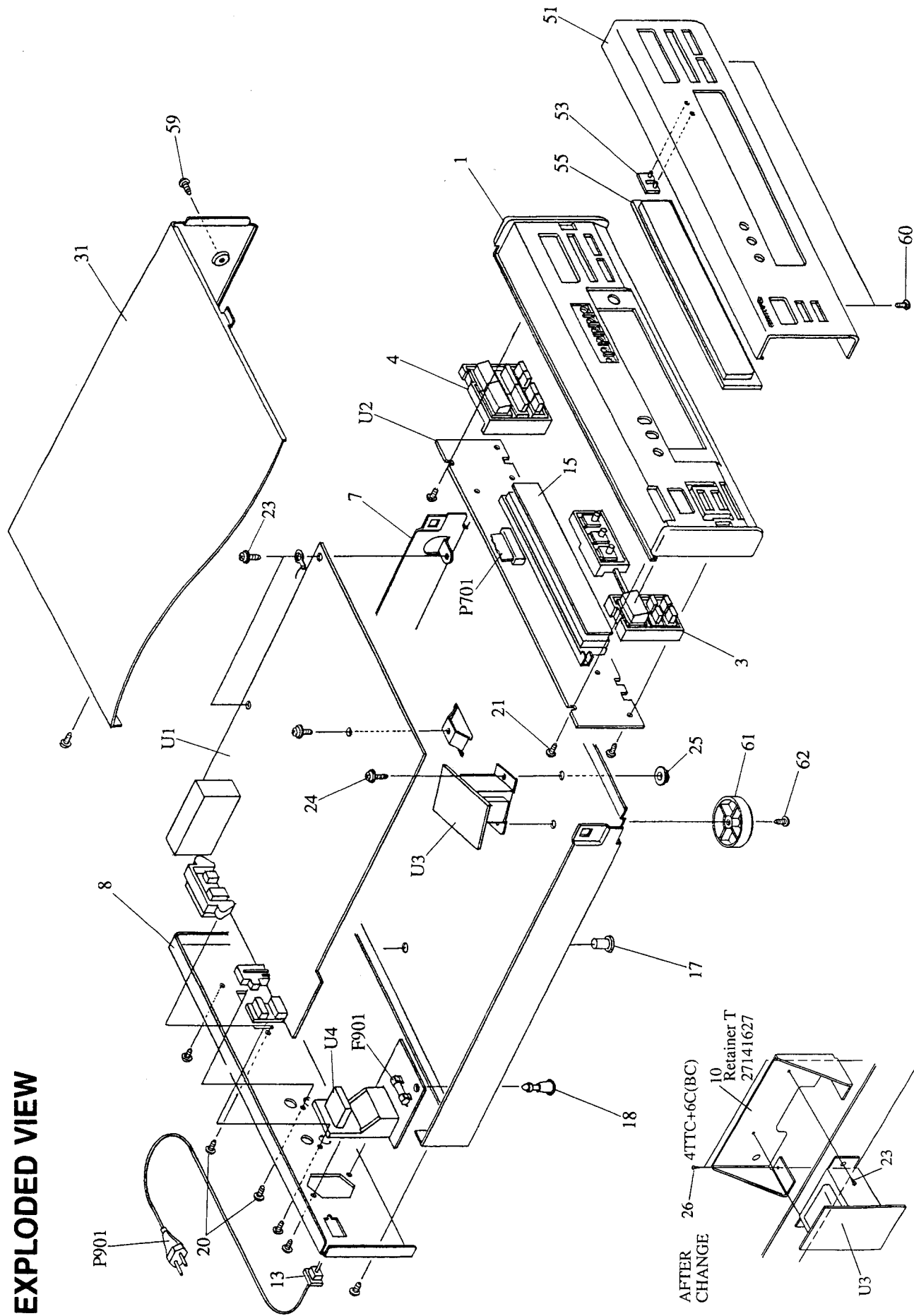


DISPLAY CIRCUIT PC BOARD

BLOCK DIAGRAM



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
1	27110777	Front bracket
	27110778	Front bracket <S>
3	28324850	Knob POWER
	28324851	Knob POWER <S>
4	28324852A	Knob OP
	28324853A	Knob OP <S>
7	27100222D	Chassis
8	27121787	Rear panel <P>
	27121788	Rear panel <W>
13	27300750	Bushing cord
15	28133311	Back plate
	28133260	Back plate <S>
17	27190813	KGPS-10R,Holder
18	27190524	KGLS-14RT,Holder
20	834430088	3TTS+8B(BC),Self-tapping screw
21	833430080	3TTP+8P(BC),Self-tapping screw
23	831130088	3TTW+8B, Self-tapping screw
24	801105	8W3P+6FN,Pan head screw
25	86213010	WN3×10FN,Nut
31	28184544	Top cover
	28184545	Top cover <S>
51	1A445121	Front panel ass'y
	1A446121	Front panel ass'y <S>
53	28198795	Facet
55	28191667	Clear plate
59	834430088	3TTS+8B(BC),Self-tapping screw
	834230108	3TTS+10B(Ni),Self-tapping screw <S>
60	801230	3STS+8BQ(BC),Self-tapping screw
61	27175294Y	Leg
62	834430088	3TTS+8B(BC),Self-tapping screw
71	82143006	3P+6FN(BC),Pan head screw <W>

REF. NO.	PART NO.	DESCRIPTION
F901	252075	△ 2.5A-SE-EAK,Fuse <P>
P701	2047251012	NCFC7-251012,Flexible flat cable
P901	253193HIT	△ AS-CEE,Power supply cord
U1	1A445586-1A	NARF-4786-1A,Tuner circuit pc board ass'y <P>
	1A445586-1C	NARF-4786-1C,Tuner circuit pc board ass'y <W>
U2	1A445587-1A	NADIS-4787-1A,Display circuit pc board ass'y <P>
	1A445587-1C	NADIS-4787-1C,Display circuit pc board ass'y <W>
U3	1A445588-1A	NAPS-4788-1A,Power supply circuit pc board ass'y <P>
	1A445588-1C	NAPS-4788-1C,Power supply circuit pc board ass'y <W>
U4	1A445500-1A	NAPS-4800-1A,AC outlet terminal pc board ass'y <P>
	1A445500-1C	NAPS-4800-1C,AC outlet terminal pc board ass'y <W>
U5	1A445501-1	NAPS-4801-1, Voltage selector pc board ass'y <W>

NOTE: :Black model only

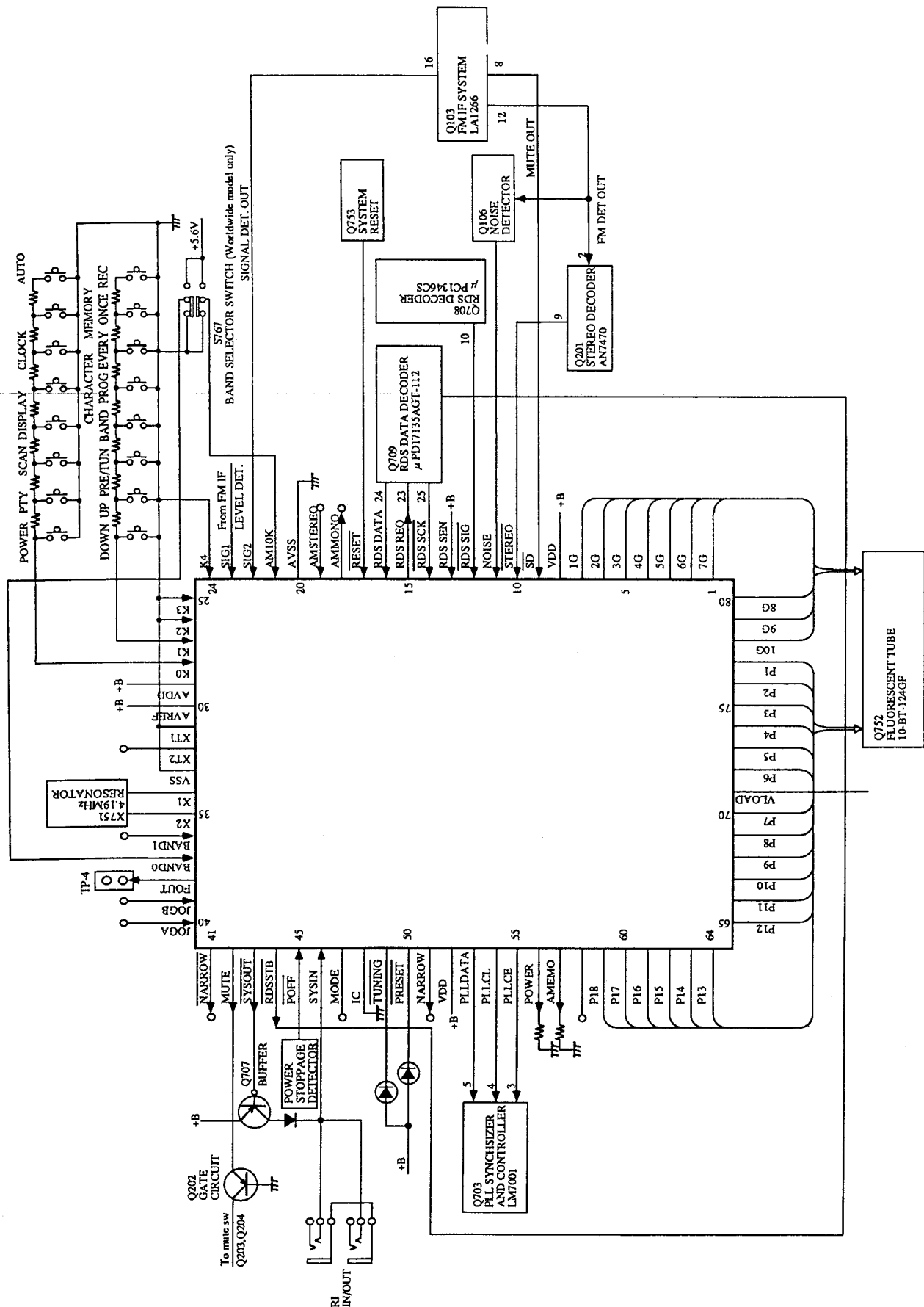
<S>:Silver model only

<P>:230 V model only

<W>:Worldwide model only

NOTE: THE COMPONENTS IDENTIFIED BY MARK △
ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH
PART NUMBER SPECIFIED.

MICROPROCESSOR CONNECTION DIAGRAM



TERMINAL DESCRIPTION

Pin No.	Function	I/O	Descriptions
1~7	7G~1G	O	Grid output terminals for fluorescent tube.
8	VDD		Power supply terminal
9	SD	I	Broadcast detection input more than the muting level
10	STEREO	I	Stereo broadcast detection input
11	NOISE	I	Noise detection input
12	RDSSIG	I	RDS broadcast detection input
13	RDSEN	I	Initializing input for RDS operation
14	RDSSCK	I	Connect to the terminal SCK of RDS data decoder IC μ PD17135AGT-112.
15	RDSREQ	O	Connect to the terminal REQ of RDS data decoder IC μ PD17135AGT-112.
16	RDSDATA	I	Connect to the terminal DATA of RDS data decoder IC μ PD17135AGT-112.
17	RESET	I	System reset terminal
18	AMMONO	O	AM AUTO/MANUAL control output. Not used.
19	AMST	I	Initializing input for AM stereo operation
20	AVSS		Ground terminal of A/D converter
21	AM10K	I	Initializing input for AM band step
22	SIG2	I	Signal strength level input
23	SIG1	I	Signal strength level input
24~28	K4~K0	I	Operation key connection terminals
29	AVDD		Analog power supply terminal of A/D converter
30	AVREF		Reference voltage input of A/D converter
31	XT1		Resonator terminals for sub system.
32	XT2		Not used.
33	VSS		Ground terminal
34	X1		Resonator terminals for main system
35	X2		Connect the 4.19MHz ceramic resonator.
36	BAND1	I	Initializing input for FM band step
37	BAND0	I	
38	FOUT	O	Resonator frequency adjustment output
39	IOGB	I	Log dial signal A
40	IOGA	I	Log dial signal B

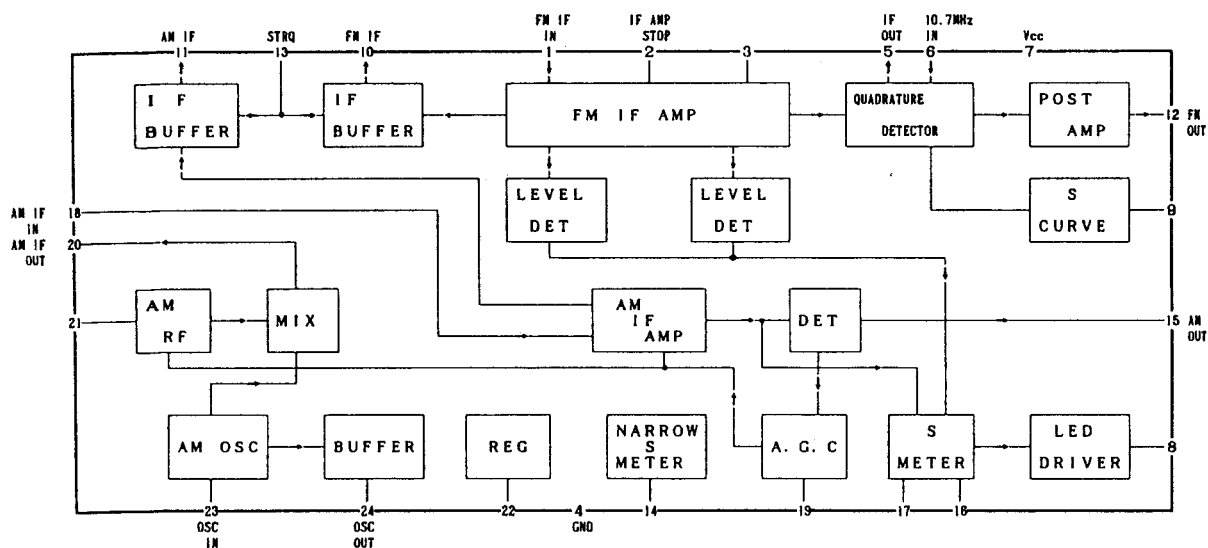
Pin No.	Function	I/O	Descriptions
41	NARROW	O	NARROW indicator output
42	MUTE	O	Muting control output
43	SYSOUT	O	System code output
44	RDSSTB	I	Connect to the terminal STB of RDS data decoder.
45	POFF	I	Power stoppage detection input
46	SYSIN	I	System code input
47	MODE	I	Initializing input for operation mode
48	IC		Connect to the ground terminal.
49	TUNING	O	TUNING indicator output
50	PRESET	O	PRESET indicator output
51	NARROW	O	IF BAND control output
52	VDD		Power supply terminal
53	PLLDATA	O	Connect to the terminal DATA of PLL IC LM7001.
54	PLLCL	O	Connect to the terminal CL of PLL IC.
55	PLLCE	O	Connect to the terminal CE of PLL IC.
56	POWER	O	Power source control output
57	AMEMO	O	AUTO MEMORY control output
58			Not used.
59~70	P18~P7	O	Segment output terminals for fluorescent tube.
71	VLOAD		Pull-down resistor connection terminal of FL controller and driver.
72~77	P6~P1	O	Segment output terminals for fluorescent tube
78~80	10G~8G	O	Grid output terminals for fluorescent tube

INITIALIZING OF FM/AM BAND

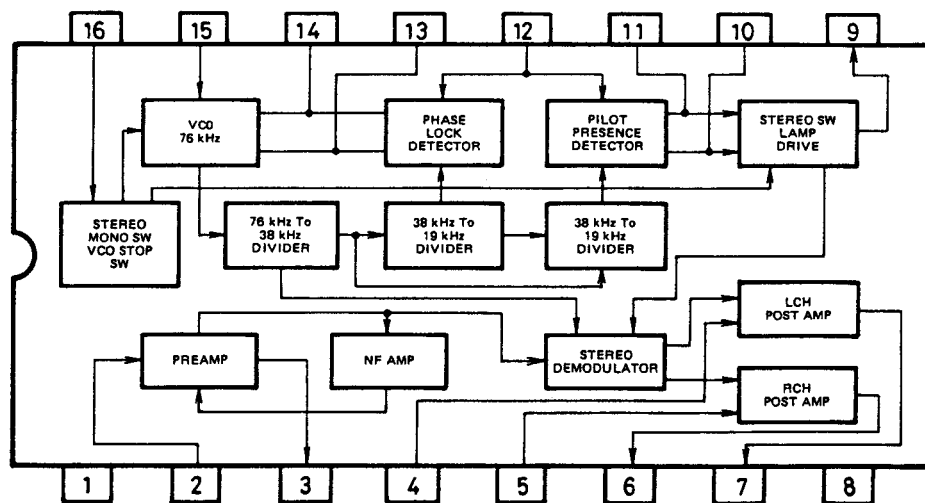
			FM		AM	
BAND0	BAND1	AM10K	Region	Frequency range	Step	Step
0	1	0	Europe	87.5~108.00MHz	50kHz	9kHz
1	0	0	Worldwide	87.5~108.00MHz	50kHz	9kHz
1	1	1	120V model	87.9~107.9MHz	200kHz	10kHz
0	0	0	Japan	76.0~108.0MHz	100kHz	9kHz

IC BLOCK DIAGRAMS AND DESCRIPTION

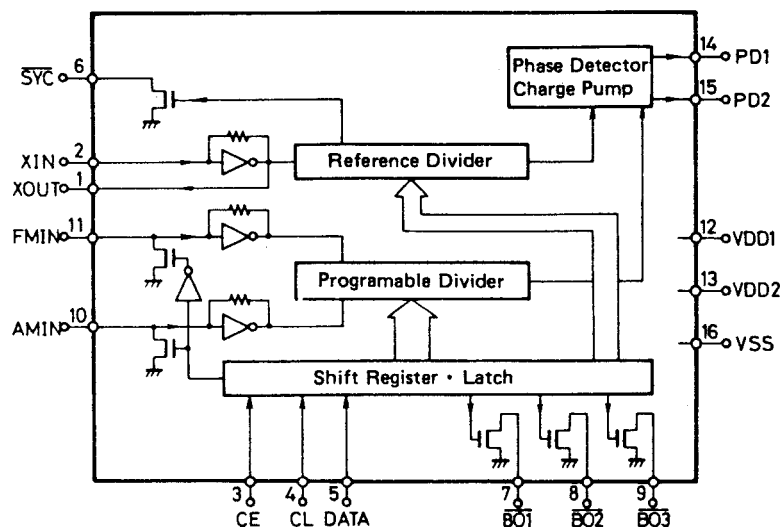
LA1266 (FM IF/AM radio system)



AN7470 (FM stereo decoder)

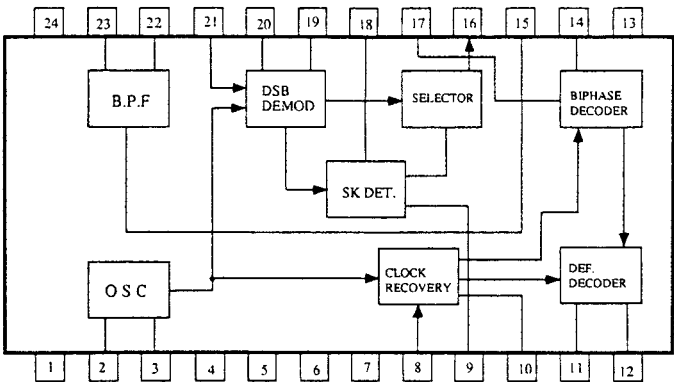


LM7001 (PLL frequency synthesizer)



Pin No.	Terminal	Description									
1	XOUT	Connect to the 7.2 MHz crystal oscillator.									
2	XIN										
3	CE	Chip enable terminal. Connect to the PLL terminal of microprocessor μ PD75268CW-025.									
4	CL	Serial clock input terminal. Connect to the CLOCK terminal of microprocessor μ PD75268CW-025.									
5	DATA	Serial data input terminal. Connect to the DATA terminal of microprocessor μ PD75268CW-025.									
6	SYN	Not used.									
8	BAND1	Band selector output terminal. <table border="1"><tr><td>BAND</td><td>BAND 1</td><td>BAND 2</td></tr><tr><td>FM</td><td>L</td><td>H</td></tr><tr><td>AM</td><td>H</td><td>L</td></tr></table>	BAND	BAND 1	BAND 2	FM	L	H	AM	H	L
BAND	BAND 1		BAND 2								
FM	L		H								
AM	H	L									
9	BAND2										
7	BO1	This is the output terminal for AUTO/MONO. 'L' when AUTO.									
10	AMIN	AM local oscillator input terminal.									
11	FMIN	FM local oscillator input terminal.									
12	VDD 1	Power supply terminal for back-up.									
13	VDD 2	Power supply terminal.									
14	PD1	Charge pump output of the phase detector which constitutes the PLL. High level is output when the divided local oscillator frequency is high than the reference frequency. In the opposite case, low level is output. Floating occurs when the frequencies matched. The output is applied to the variable capacitor diode in the local oscillator through the low pass filters.									
15	PD2										
16	Vss	Ground terminal.									

μPC1346CS (RDS Decoder)



No.	Terminal	Description	No.	Terminal	Description
1	Vcc	Supply voltage for the digital circuit	13	GND	Ground for the analog circuit
2	OSC IN	Resonator input	14	INTEG	Integrating filter terminal
3	OSC OUT	Resonator output	15	BPF ADJ	Adjustment fc of band pass filter
4	GND	Ground for the digital circuit	16	PSK OUT	Biphase signal output
5	TEST1	Test input	17	PSK IN	Biphase decoder input
6	TEST2	Test input	18	LPF SK	Low pass filter for the detection SK
7	OP.CTL	Control input of the operation stop	19	LPF Q	Low pass filter for the crossed detector
8	S/L CTL	Mode control input of the synchronizing detection	20	LPF I	Low pass filter for the synchronizing detector
9	SK OUT	SK detection output	21	DSB IN	DSB demodulator circuit input
10	RDS OUT	RDS synchronizing detection output	22	BPF OUT	Band pass filter output
11	CLOCK OUT	Bit rate clock output	23	BPF IN	Band pass filter input
12	DATA OUT	RDS data output	24	Vcc	Supply voltage for analog circuit

ADJUSTMENT PROCEDURES

Preparation

• Input

FM mono: 1kHz, 75kHz devi., 60dB/μV (65dBf)

FM stereo: 1kHz, L+R 67.5kHz devi.: Pilot signal 19kHz
7.5kHz devi.

AM: 400Hz, 30% mod.,

1. CLOCK ADJUSTMENT

Connect the frequency counter to test point TP-4.

Press and hold down the MEMORY button, then press the KEY MODE button.

Adjust the trim capacitor C757 so that the indication of frequency counter becomes $524.288\text{kHz} \pm 1\text{Hz}$.

After adjustment, turn the POWER switch to OFF.

2. FM ADJUSTMENT

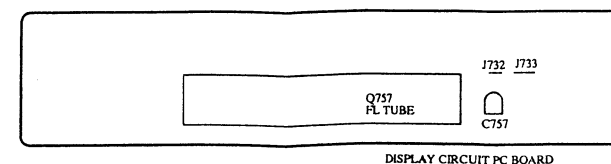
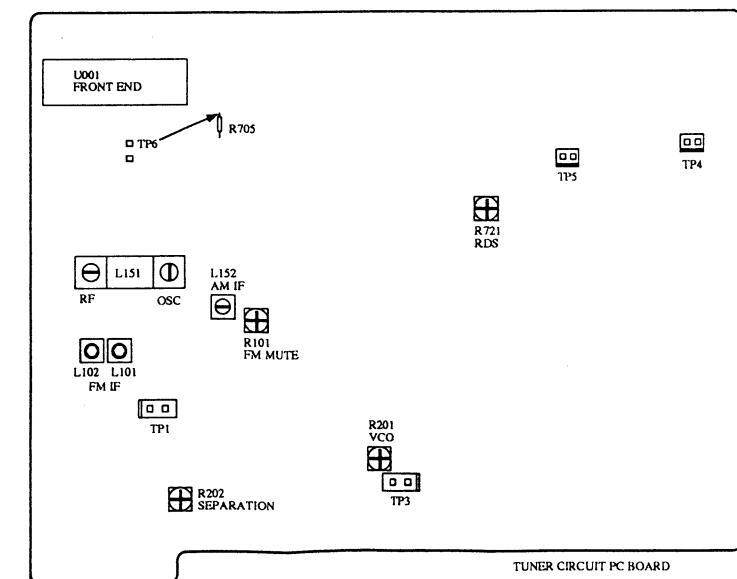
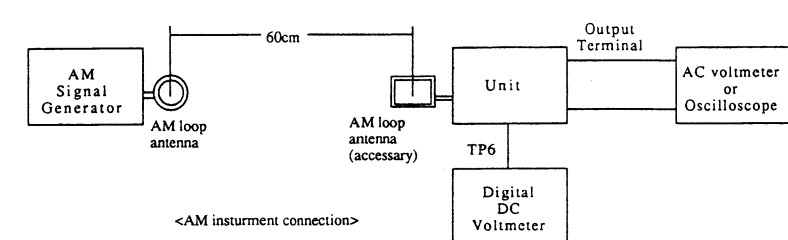
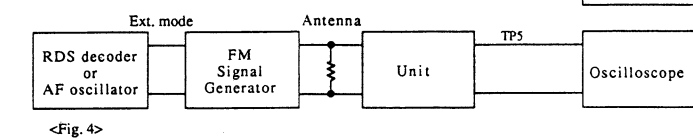
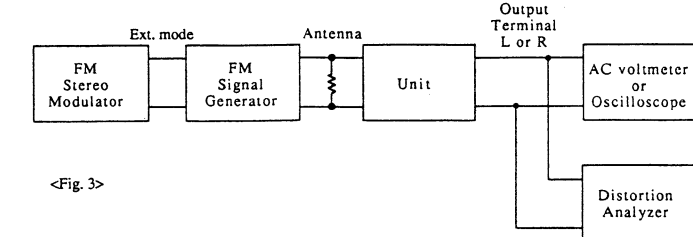
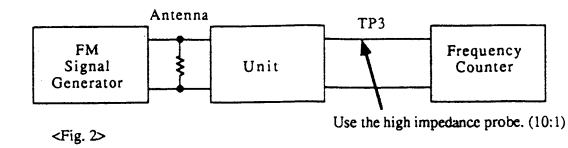
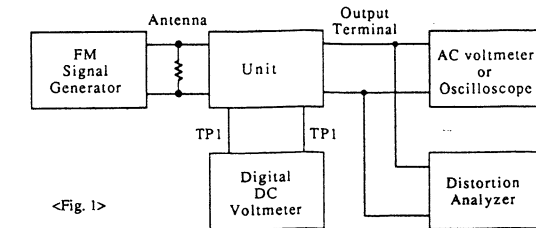
Item	Step	Connection of instrument	FM SG output	Stereo modulator output	Tuning frequency	Output indicator	Adjustment point	Adjust for	Remarks
FM IF/RF	1	Fig.1	99.0MHz 1kHz 75kHz devi. 65dBf(60dB)	—	99.0MHz	DC voltmeter	L101	$0 \pm 20\text{mV}$	FM MUTE/MODE switch:OFF/MONO Repeat the steps 1 and 3 until no further adjustment is necessary.
	2					AC voltmeter	IFT on the front end	Maximum	
	3					Distortion analyzer	L102	Minimum	
VCO		Fig.2	99.0MHz 1kHz 75kHz devi. 65dBf(60dB)	—	99.0MHz	Frequency counter	R201	$19\text{kHz} \pm 10\text{Hz}$	FM MUTE/MODE switch:ON/STEREO
Stereo Distortion		Fig.3	99.0MHz Ext. mod. 65dBf(60dB)	Channel L or R 1kHz	99.0MHz	Distortion analyzer	IFT on the front end	Minimum	Don't turn more than $\pm 180^\circ$
Stereo Separation	1	Fig.3	99.0MHz Ext. mod. 65dBf(60dB)	Channel L 1kHz	99.0MHz	Channel R AC voltmeter	R202	Minimum	Maximum and same separation
	2			Channel R 1kHz		Channel L AC voltmeter		Minimum	
Muting Level		Fig.3	99.0MHz 19.2dBf(14dB)	—	99.0MHz	Oscilloscope	R101	Signal output	
RDS		Fig.4	98.0MHz Ext. mod. 60dB	RDS data or 57kHz 3% devi.	98.0MHz	Oscilloscope	R721	Maximum	

3. AM ADJUSTMENT

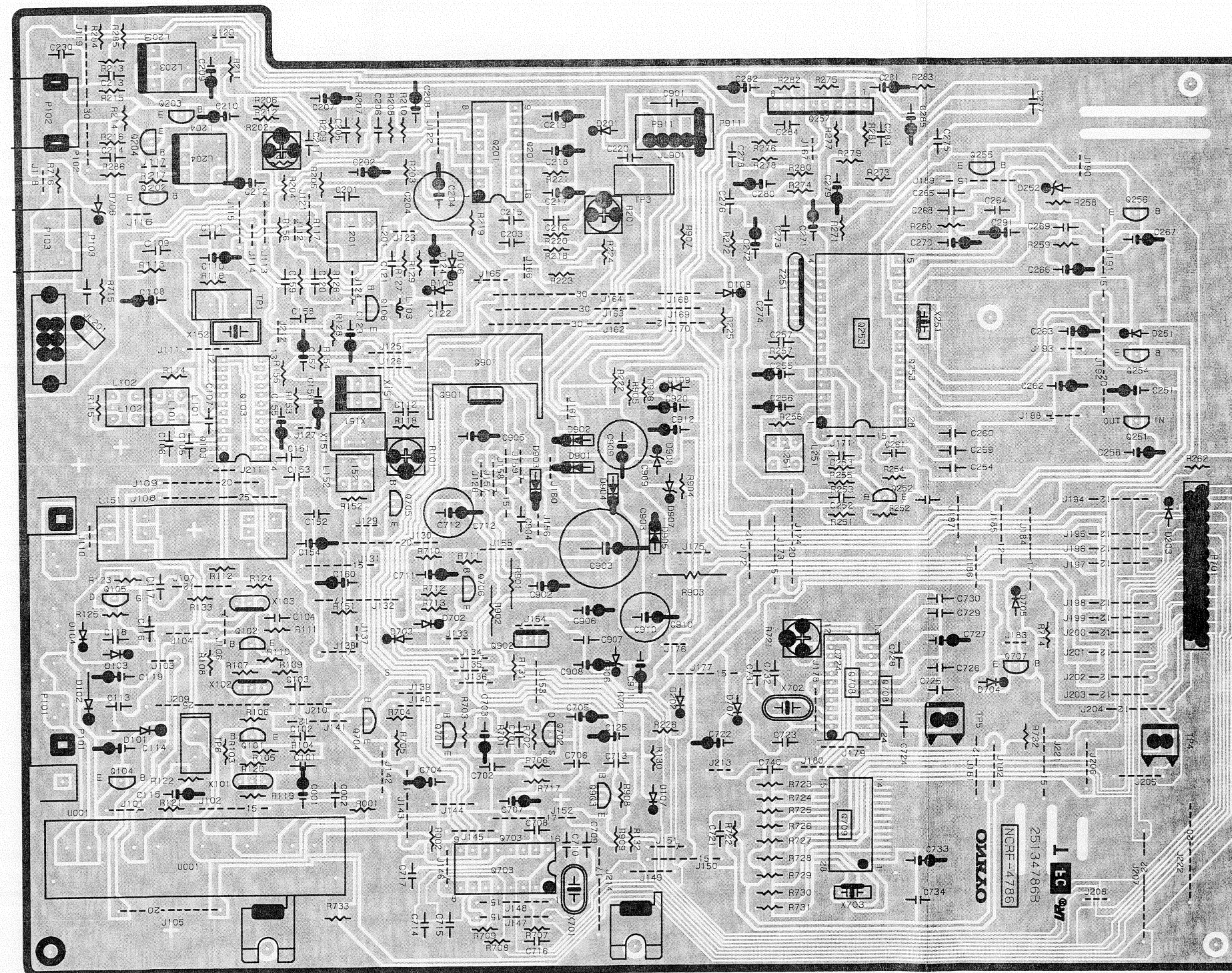
Step	AM SG output	Tuning Frequency	Output Indicator	Adjustment point	Adjust for
1		522kHz or 531kHz	Digital DC voltmeter	OSC coil on RF block L151	$1.5 \pm 0.1\text{V}$
2	603kHz 400Hz 30% mod. 60dB/m	603kHz	AC voltmeter	RF coil on RF block L151	Maximum
3	999kHz 400Hz 30% mod. 60dB/m	999kHz	AC voltmeter	L152	Maximum

Reference Specification

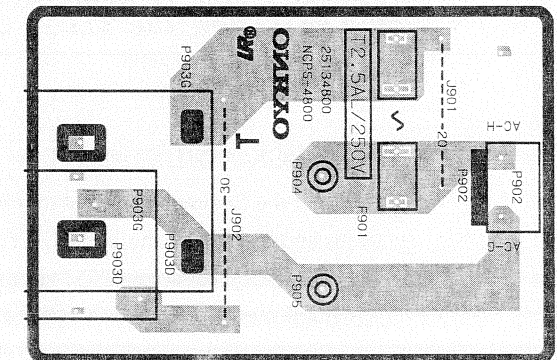
FM tuned voltage: 87.5MHz-108MHz
 $2.0 \pm 0.4\text{V} - 7.5 \pm 0.4\text{V}$
AM tuned voltage: 522kHz-1611kHz
 $1.5 \pm 0.4\text{V} - 7.5 \pm 0.4\text{V}$
(230V model)
AM tuned voltage: 531kHz-1602kHz
 $1.5 \pm 0.4\text{V} - 7.5 \pm 0.4\text{V}$
(Worldwide model)



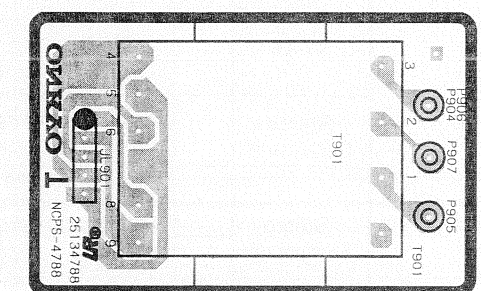
PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE



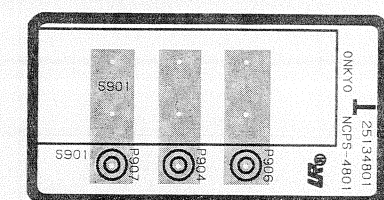
TUNER CIRCUIT PC BOARD



AC OUTLET TERMINAL PC BOARD

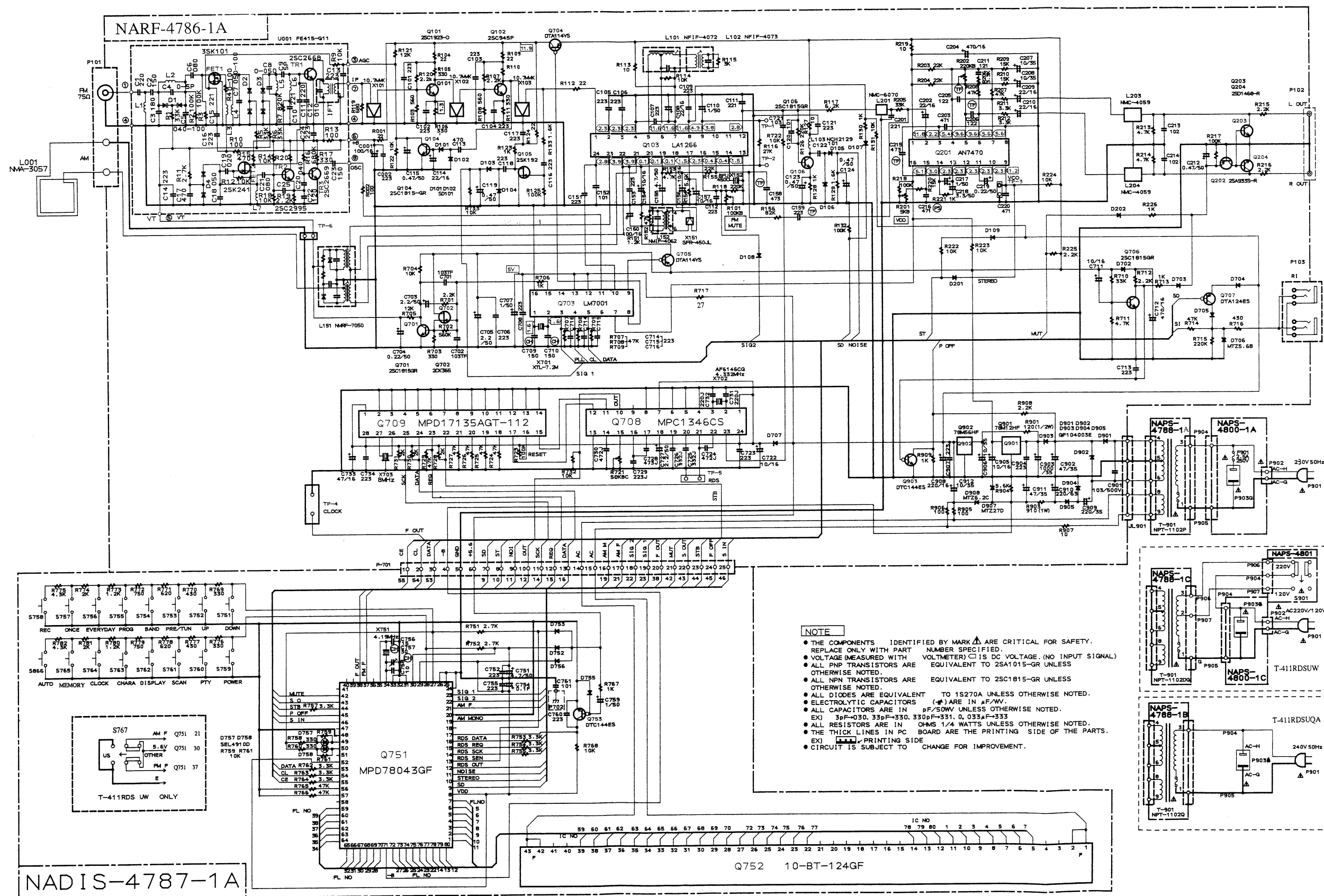


POWER SUPPLY CIRCUIT PC BOARD



VOLTAGE SELECTOR SWITCH PC BOARD

SCHEMATIC DIAGRAM



PRINTED CIRCUIT BOARD – PARTS LIST

TUNER CIRCUIT PC BOARD (NARF-4786-1A/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION	CIRCUIT NO.	PART NO.	DESCRIPTION
	Front end			Capacitors	
U001	240089	FE415-G11	C001,C160	354741019	100 μ F,16V,Elect.
	ICs		C108,C114	354742209	22 μ F,16V,Elect.
Q103	22240039	LA1266	C110,C217	354780109	1 μ F,50V,Elect.
Q201	22240242	AN7470	C115,C119	354784799	0.47 μ F,50V,Elect.
Q703	22240090	LM7001	C123,C124	354784799	0.47 μ F,50V,Elect.
Q708	22240679	μ PC1346CS	C154	354741009	10 μ F,16V,Elect.
Q709	22240639A	μ PD17135AGT-112	C155	354780479	4.7 μ F,50V,Elect.
Q901	222780125	78M12HF	C156,C157	354741009	10 μ F,16V,Elect.
Q902	222780565JRC	78M56	C158,C215	374724734	0.047 μ F $\pm$ 5%,50V,Plastic
	Transistors		C159,C729	374722234	0.022 μ F $\pm$ 5%,50V,Plastic
Q101	2211723	2SC1923-O	C202	354742209	22 μ F,16V,Elect.
Q102	2210746	2SC945A-P	C204,C712	354744719	470 μ F,16V,Elect.
Q104,Q106	2211255 or	2SC1815-GR or	C205,C206	374721224	1200pF $\pm$ 5%,50V,Plastic <P>
Q701,Q706	2214915	2PC1815-GR		374721524	1500pF $\pm$ 5%,50V,Plastic <W>
Q105	2212274	2SK192A-Y	C207,C208	354741009	10 μ F,16V,Elect.
Q202	2213354	2SA933S-R	C209,C210	354742209	22 μ F,16V,Elect.
Q203,Q204	2212794	2SD1468-R	C212	354784799	0.47 μ F,50V,Elect.
Q702	2212445	2SK365-GR	C216	370134714	470pF $\pm$ 5%,100V,Plastic
Q704,Q705	2213090	DTA114YS	C218	354780339	3.3 μ F,50V,Elect.
Q707	2212600	DTA124ES	C219,C704	354782299	0.22 μ F,50V,Elect.
Q903	221282	DTC144ES	C701,C702	374721034	0.01 μ F $\pm$ 5%,50V,Plastic
	Diodes		C703,C705	354780229	2.2 μ F,50V,Elect.
D101,D102	223191	SD101	C707	354780109	1 μ F,50V,Elect.
D103-D109	223222 or	WG713A or	C711,C722	354741009	10 μ F,16V,Elect.
D201,D202	223171	1SS270A	C724,C730	374724724	4700pF $\pm$ 5%,50V,Plastic
D702-D705	223222 or	WG713A or	C725,C726	374723324	3300pF $\pm$ 5%,50V,Plastic
D707	223171	1SS270A	C727	354780229	2.2 μ F,50V,Elect.
D706	224450562	MTZ5.6B	C728	374724734	0.047 μ F $\pm$ 5%,50V,Plastic
D901-D905	22380035	GP104003E	C733	354744709	47 μ F,16V,Elect.
D907	224452702	MTZ27B	C902,C911	354764709	47 μ F,35V,Elect.
D908	224450623	MTZ6.2C	C903	354761029	1000 μ F,35V,Elect.
	Transformers		C905	354741009	10 μ F,16V,Elect.
L101	233401	NFIF-4072	C906,C912	354761009	10 μ F,35V,Elect.
L102	233402	NFIF-4073	C908	354742219	220 μ F,16V,Elect.
L152	232139	NMIF-4062	C909	354762219	220 μ F,35V,Elect.
	Coils		C910	354772219	220 μ F,63V,Elect.
L103	231081	NCH-2129		Resistors	
L151	232148	NMRF-7050	R101	5210266	N06HR100KBC,Trim
L201	233383	NMC-6070	R201	5210261	N06HR5KBC,Trim
L203,L204	233355A	NMC-4059	R202	5210267	N06HR200KBC,Trim
	Ceramic filters		R721	5210265	N06HR50KBC,Trim
X101-X103	3010137	SFE10.7MMK	R901	442521214	120 Ω $\pm$ 5%,1/2W,Metal oxide
X151	3010123	SFZ-450JL	R903	442629114	910 Ω $\pm$ 5%,1W,Metal oxide
X152	3010076	BFU-450C		Plugs	
	Resonators		TP-4,TP-5	25055038	NPLG-2P29
X701	3010141	XTL-7.2M,Crystal		Terminals	
X702	3010203	AF6146CG,Crystal	P101	25060117	NTM-2PDML051
X703	3010190	CST8.00MTW,Ceramic	P102	25045333	NPJ-2PDBL185
			P103	25045330	HSJ-2PDBL184
				Wire traps	
			P701	25050701 or	NSCT-25P505
				25050965	NSCT-25P752
			P911	25050269	NSCT-5P97

DISPALY CIRCUIT PC BOARD (NADIS-4787-1A/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
	IC	
Q751	22240730	μ PD78043GF-028
	FL tube	
Q752	212125	10-BT-124GK
	Transistor	
Q753	221282	DTC144ES
	Diodes	
D752,D755	223222 or	WG713A or
D756	223171	1SS270A
D757,D758	225291D	SEL4910-D,LED
	Resonator	
X751	3010224	XTL-4.19M,Crystal
	Capacitors	
C751	355780479	4.7 μ F,50V,Elect.
C754	3000057	0.1F,5.5V,Super
C757	3060029	NTC-30P25,Trim
C759	355780109	1 μ F,50V,Elect.
	Switches	
S751-S766	25035652	NPS-111-S604
S767	25065286	NSS-22112 <W>
	Wire trap	
P701	25050701	NSCT-25P505
	Holder	
	27190932	FL tube

POWER SUPPLY CIRCUIT PC BOARD (NAPS-4788-1A/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
T901	2300637	Δ NPT-1102P,Power transformer <P>
	2300638	Δ NPT-1102DG,Power transformer <W>
	28175137	Shield plate

AC OUTLET TERMINAL PC BOARD (NAPS-4800-1A/1C)

CIRCUIT NO.	PART NO.	DESCRIPTION
P902	25055675	NPLG-2P631,Plug
P903	25050410	Δ NSCT-2P235,AC outlet
F901	252075	Δ 2.5A-SE-EAK,Fuse <P>
F901a	25050065	Δ YSH403T,Fuseholder <P>

VOLTAGE SELECTOR SWITCH PC BOARD (NAPS-4801-1)

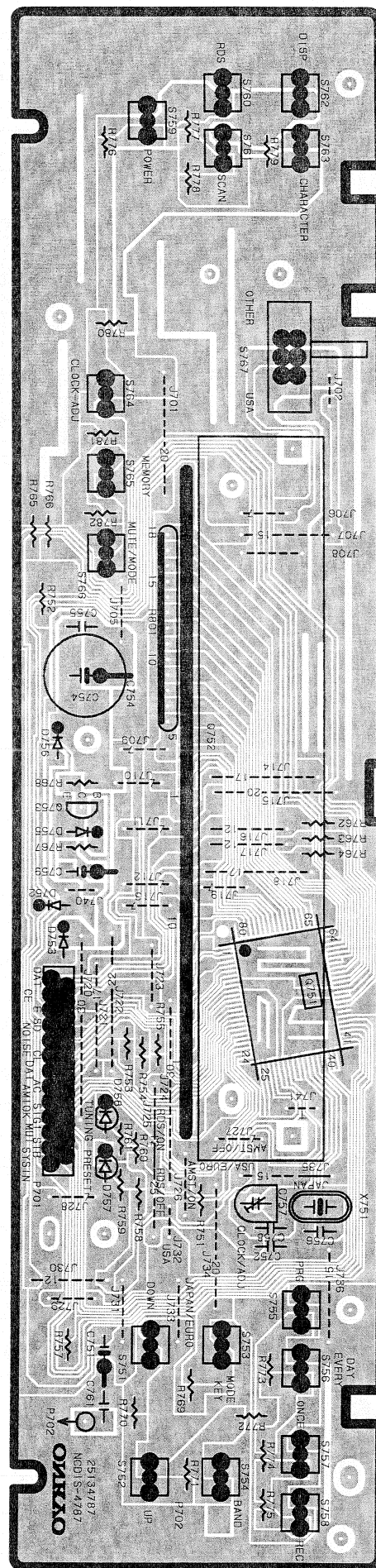
Worldwide model only

CIRCUIT NO.	PART NO.	DESCRIPTION
S901	25065287	Δ NSS-22113P,Slide switch

NOTE: <P>:230V model only

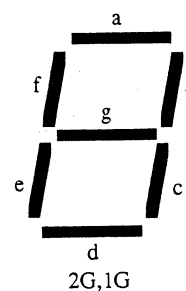
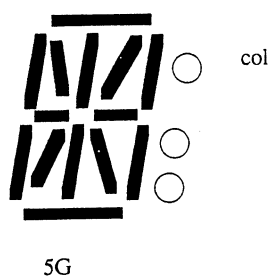
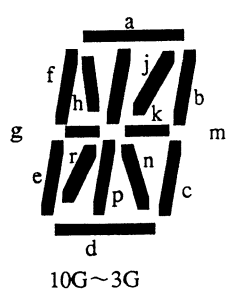
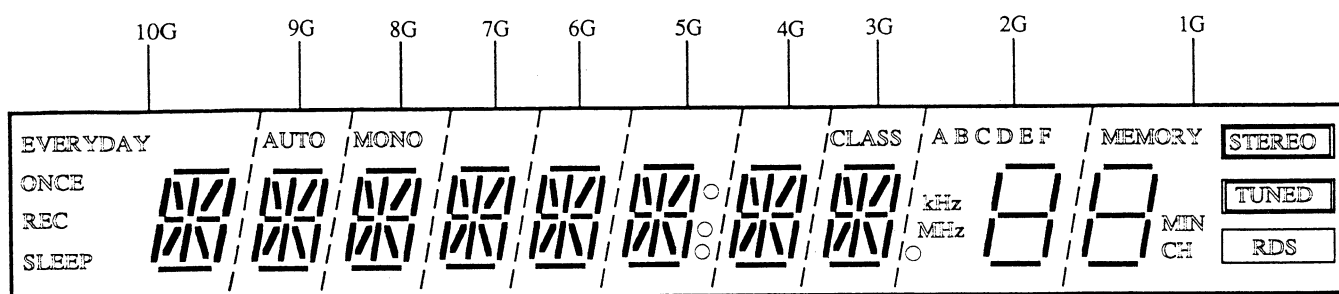
<W>:Worldwide model only

NOTE: THE COMPONENTS IDENTIFIED BY MARK Δ ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PART NUMBER SPECIFIED.



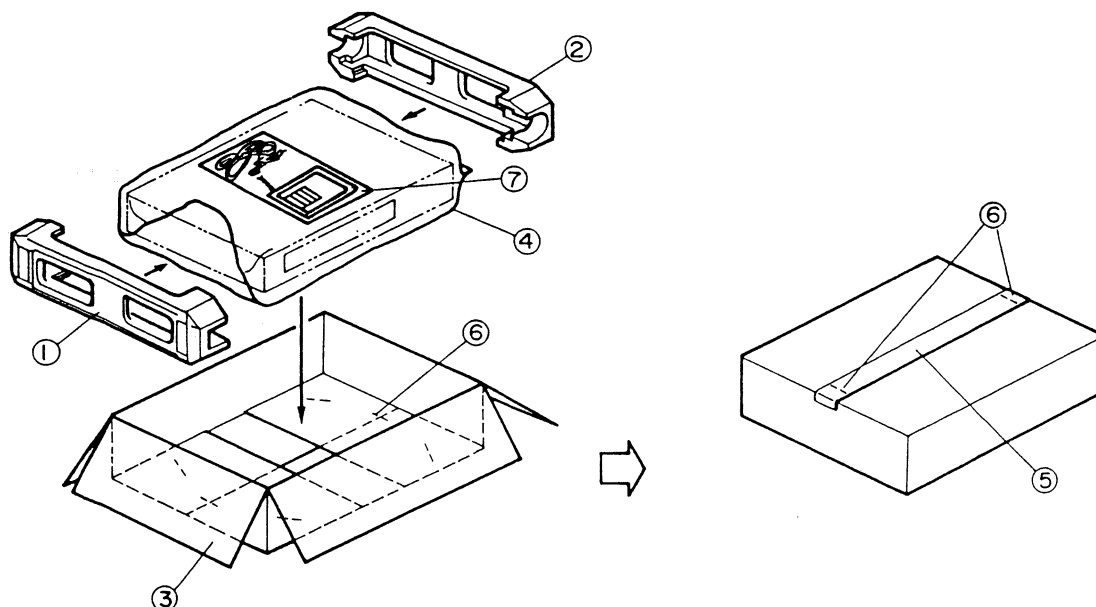
DISPLAY CIRCUIT PC BOARD

FL TUBE VIEW



	10G	9G	8G	7G	6G	5G	4G	3G	2G	1G
P1	a	a	a	a	a	a	a	a	a	a
P2	b	b	b	b	b	b	b	b	b	b
P3	c	c	c	c	c	c	c	c	c	c
P4	d	d	d	d	d	d	d	d	d	d
P5	e	e	e	e	e	e	e	e	e	e
P6	f	f	f	f	f	f	f	f	f	f
P7	g	g	g	g	g	g	g	g	g	g
P8	h	h	h	h	h	h	h	h	—	—
P9	j	j	j	j	j	j	j	j	A	MEMORY
P10	k	k	k	k	k	k	k	k	B	STEREO
P11	m	m	m	m	m	m	m	m	C	TUNED
P12	n	n	n	n	n	n	n	n	D	RDS
P13	p	p	p	p	p	p	p	p	E	—
P14	r	r	r	r	r	r	r	r	F	—
P15	EVERYDAY	AUTO	MONO	—	—	col	—	CLASS	kHz	MIN
P16	ONCE	—	—	—	—	○	—	—	MHz	CH
P17	REC	—	—	—	—	—	—	—	○	—
P18	SLEEP	—	—	—	—	—	—	—	—	—

PACKING VIEW



REF.NO.	PART NO.	DESCRIPTION
1	29091640B	Pad L
2	29091641B	Pad R
3	29052655	Master carton box
	29052656	Master carton box <S>
4	29100123	550×430, Styrene bag
5	29110071	Damplon tape
6	282301	Sealing hook
7	Accessory bag ass'y	
	29341872	Instruction manual <Z>
	29341857	Instruction manual <Z>
	29341856	Instruction manual <V>
	29341873	Instruction manual <W>
	29100097	350×250, Styrene bag
	25065462	FM adaptor <W>
	292112Y	FM antenna
	232140	NMA-3057, AM loop antenna
	2010098A	Connection cord
	2010200	Connection cord RI
	29365020H	Warranty card <V>
	29100094B	Styrene bag for warranty card <V>
	25055040	CV-K-2, Conversion plug <W>

NOTE: <P>:230V model only
 <W>:Worldwide model only
 :Black model only
 <S>:Silver model only
 <V>:Germany model only
 <Z>:Except Germany model

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